

Changing Family Size in England and Wales

Place, Class and Demography, 1891–1911

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1

Introduction

1.1 The fast-changing demography of England and Wales, c. 1880–1920

Profound social and demographic changes were underway within British society as the nineteenth century waned. The four decades straddling Queen Victoria's epoch-closing demise in 1901 were witness to the dawning of a new era in the nation's family life. Marriage patterns, birth rates, infant and child mortality, family sizes, sexual behaviour and sexual attitudes, the position of the elderly, and the typical compositions of households in terms of children, servants and boarders, were all changing relatively rapidly between the late-1870s and the 1920s, when compared with the preceding and succeeding half-centuries.

This is reflected in strong movements of the basic demographic indices. Whereas the crude death rate of England and Wales had remained fairly constant, somewhat above 20 deaths per thousand persons, since civil vital registration began in 1837, from 1881 it fell continually to a figure of 14 per thousand by 1910–12 and 12 per thousand by 1920–2, after which the rate of decline slowed markedly.¹ Similarly, the crude birth rate, having fluctuated quite substantially, between rates of 32 and 37 per thousand persons since 1837, fell unambiguously from the late 1870s, to a figure of just under 25 per thousand by 1911, subsequently settling at a level of just over 15 per thousand throughout the 1930s.² Figure 1.1.1 shows these general trends within a wider chronological context.

Of course, different regions and localities varied enormously, as this volume will strive to emphasise, but the scale of the general trends also needs to be appreciated. For instance, among those married women born between 1851 and 1855, over one-third experienced at least seven live births and as many as 15 per cent had ten or more confinements

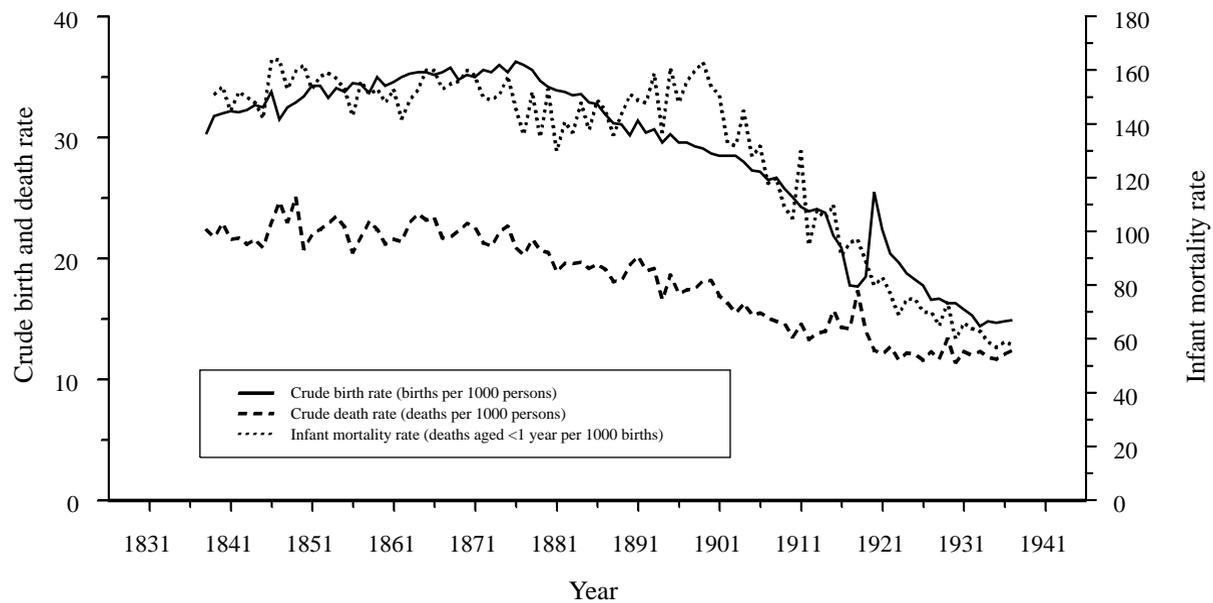


Fig. 1.1.1 Fertility and mortality trends in England and Wales, 1838–1937; crude birth rate, crude death rate and infant mortality. *Source:* Mitchell (1988), Tables 10A, 10B and 13.

during the course of their lives. But of those women born half a century later, between 1901 and 1905, less than 5 per cent of those who married had seven or more children and only 1 per cent had ten or more. Sixteen per cent of the earlier cohort and 21 per cent of the later cohort were childless. Whereas 15 per cent of the former had only one or two children, almost 50 per cent of the latter cohort had families of this small size.

The kinship simulation calculations of Zhao, based on data from the 1911 and 1961 censuses of England and Wales, have demonstrated how these demographic changes had important implications for the typical pattern of family life and individuals' personal experiences. Grandparenthood or, reciprocally, the experience of knowing one's grandparents, is a good example of this. Only 34 per cent of the women born in the 1850s still had both parents alive in the 1880s when they themselves were in their thirties and bringing up young families; but over 60 per cent were in this position among those born in the 1900s and bringing up their families in the 1930s.³ Contrary to popular assumptions that grandparents are now less involved with their children's families than in the past, the simulations show that full and active grandparenthood has only become a general demographic possibility relatively recently. The capacity of parents with young children to call on their own parents for assistance during the child rearing years and the possibility of children learning from and coming to know their own grandparents was a rarity in the mid-nineteenth century; it only became a common possibility in the twentieth century. Change also engulfed the experience of the grandparental generation. Of those women from the 1850s birth cohort who survived to be 75, over half would have more than five living grandchildren. Among the women from the 1900 birth cohort surviving to the same age, fewer than 14 per cent had such a large number of grandchildren. More than half of this generation had no grandchildren to help celebrate their seventy-fifth birthday; indeed, 43 per cent had no children with whom to celebrate. Among the cohort from the 1850s the equivalent figures were, respectively, about 35 per cent and 31 per cent.

The dramatic fertility and mortality changes occurring during the three to four decades preceding the Great War were thus exerting a range of powerful short-, medium- and long-term effects on family life, individual experience and society. In combination, the changes created an inter-war Brave New World of 'demographic certainty', a society where individuals found themselves relatively emancipated from the natural caprices of birth and death, probably for the first time in human history.⁴ The present volume is a further contribution towards the

academic enterprise of attempting to understand and explain how and why these fundamental demographic shifts occurred. The ensuing study focuses in particular on fertility change and that dimension of mortality change which has been most closely related to fertility: deaths among infants and children.

1.2 Demography, national anxiety and the 1911 census

For the present study, among many others, the most important materials for studying these historical demographic phenomena in England and Wales remain the official products of the General Register Office (GRO), the department of state responsible for administering the nation's vital registration system and its decennial population census. By the Edwardian era the nation's decennial census had been in regular operation for just over a century, having been in the capable hands of the GRO from the beginning of Victoria's reign.⁵

The GRO quite justifiably long enjoyed a reputation for demographic and epidemiological expertise of a high order. It always did much more than just manage the mammoth intelligence exercise of the collection of registration and census data, as stipulated in the relevant Acts of Parliament governing its duties. The GRO very quickly established itself as the principal analyst and interpreter of the nation's changing demographic and epidemiological patterns.⁶ Until the inter-war period it was staffed by an unbroken succession of extraordinarily able, medically trained statisticians, each with a profound interest in the promotion of the environmentalist, preventive public health programme, in which they had typically served an apprenticeship as a local Medical Officer of Health (MOH). The GRO's analytical capacity with respect to epidemiological change was therefore highly developed by the beginning of the twentieth century. In that same era, however, the GRO's officials, as the nation's medical and social scientific experts on population questions, found themselves inadequately equipped in terms of statistical tools, available data and relevant knowledge to analyse and comprehend the increasingly obvious downward plunge of the national birth rate.

In the 1880s and 1890s there had been an upsurge of concern over a set of long-standing worries about the 'degenerating' effects of urban existence on the human organism. This came to a head in the Edwardian decade as the nation underwent a prolonged bout of public soul-searching in the wake of the South African Wars of 1899–1902. The great British Empire had found itself militarily humbled at the hands of the Boer farmers and, with bizarre logic, placed the blame for this ignominy not

on defective military leadership or ineffectively conducted campaigns but on the poor physical quality of those members of the working classes who did not fight. The high rejection rates of those trying to enlist at urban recruiting stations was seen to be symptomatic of a withering of vitality and virility which was undermining 'national efficiency'; a sign that the 'lower orders' with their high fertility, poor child survival rates and low standards of health were reducing the average Briton's physical and mental prowess.⁷

Explanations and remedies for this state of affairs divided into two main camps. Hereditarian eugenicists argued that the higher infant and child mortality among the urban poor reflected their deficient biological stock. To achieve 'national efficiency', the hereditarians argued, the state must abandon expensive ameliorative social policies towards the poor. Instead, this strata of society should be discouraged from reproducing themselves, while the wealthy should be given greater incentives to increase the number of their children in order to increase the average quality of the nation once more. Karl Pearson in particular brought this line of thought to public attention, highlighting the class-differential aspect of both the infant mortality and the birth rates.⁸

In opposition to these views stood the environmentalists who argued that the high mortality, deficient health and physical development, poor learning capacities and large families of the poor all resulted from the harsh and insecure urban industrial environment in which so many lived. The public health movement of the Edwardian era had well over half a century of work based on such environmentalist thinking behind it.⁹ The nascent systems of social, medical and educational services put in place through the efforts of the movement were now being derided by their eugenic opponents as a waste of public money. The public health officials thus had strong political motivation to test and refute eugenic views. The Registrar-General, W. C. Dunbar, the Chief Medical Officer of the Local Government Board, Arthur Newsholme, and the Chief Superintendents of Statistics at the GRO, John Tatham and T. H. C. Stevenson, all took great pains over the first decade of the century to perfect various demographic measuring techniques, both to increase their own understanding and to provide counter-arguments to the eugenicists' claims.¹⁰ In so doing they collated and analysed the most important sources of demographic information available for studying changes in infant and child survival and fertility behaviour, and planned the 1911 census inquiry.

In 1911, following the 1900 census of the USA and the New South Wales census of 1901, and in tandem with the census of Scotland and Ireland, the census of England and Wales carried a new suite of

PARTICULARS as to MARRIAGE				
Write "Single," "Married," "Widower," or "Widow," opposite the names of all persons aged 15 years and upwards.	State for each Married Woman entered on this Schedule, the number of:-			
	Com- pleted years the present Marriage has lasted. If less than one year write "under one".	Children born alive to present Marriage. (If no children born alive write "None" in Column 7).		
		Total Children Born Alive.	Children still Living.	Children who have Died.
5.	6.	7.	8.	9.

Fig. 1.2.1 The form of the questions concerning the fertility of marriage as presented in the census schedule for England and Wales, 1911. *Source*: 1911 Census of England and Wales (1917), *General report*, Appendix A.

questions. As shown in Figure 1.2.1, these directed every married woman enumerated to return the duration of her current marriage, the number of children she had borne alive within that marriage and the number of those children who had subsequently died. Unsurprisingly, these questions earned the census of 1911 the sobriquet of the 'Fertility Census'.¹¹

The hereditarian–environmentalist debate pervaded the thinking of those designing the collection, analysis and reporting of the responses to the questions concerning family building experience in the Fertility Census. As a result, the terms of reference of this argument have remained embedded within our understanding of the declines in fertility and infant and child mortality ever since, because the official tabulations in the published reports, previously the only access to the 1911 data, inevitably reflect the contemporary intellectual agenda. In addition, the national scope of the 1911 survey and the relatively detailed nature of its findings have always endowed its results with great

authority, overshadowing subsequent studies exploring alternative sources of demographic information.

It has long been recognised that the 1911 census returns represent, for Britain, the most important and comprehensive body of historical demographic evidence compiled for the study of changing fertility, nuptiality and mortality among the young during the period before the Great War. In England and Wales present law prohibits public access to the original individual-level census returns for a century after their collection. Previously, therefore, students have had to content themselves with secondary analysis of the official tabulations published by the GRO. Thanks to the interest and persistence of Stevenson, the GRO's chief statistician at the time, a great deal of extremely valuable material from the 1911 census was abstracted and published in two volumes: an interim report presenting results in tabular form was published in 1917, while a much lengthier, more exhaustive and analytic report came out in 1923.¹² As a form of shorthand these are referred to as the *Fertility of marriage* report, Parts I and II throughout the ensuing text. Much can be and has been done with this and with other related official evidence – work which is briefly surveyed in the ensuing historiographical review – but conclusive and rigorous analysis and verification of various hypotheses concerning the detailed course of demographic change during this period necessarily awaits direct access to the original household enumeration records from the 1911 census, scheduled to be released into the public domain on 2 January 2012.¹³

In the mid-1980s, however, the Cambridge Group was able to commission the production of abstracts of a sample of anonymised individual-level returns drawn from the 1891, 1901, 1911 and 1921 Census of England and Wales from the Office of Population Censuses and Surveys (OPCS) which were provided on magnetic tape. Names and addresses were not provided in the abstracts, and members of the Group working with OPCS at the time were required to sign the Official Secrets Act. The abstracts were provided only for research carried out by the Group and remained in its custody at all times. The abstracts have now been returned to the Office for National Statistics, successor to OPCS. The early release of a certain amount of data from the 1911 Fertility Census, drawn from 13 localities across England and Wales, provides the opportunity to examine afresh the evidence for demographic change at the level of the individual couple and the community. Furthermore, since parents were asked by the 1911 census to record not only the number of children ever born to their current marriage but also the number who had subsequently died, their answers provide retrospective data which allow analysis of comparative levels and

trends in infant and child mortality as well as fertility. The ability of the present study to use individual-level data largely overcomes the limitations associated with analysis based on ecological correlations often encountered by previous studies based on the published 1911 census tabulations. This study will be able to demonstrate some of the kinds of insights which the original census returns permit above and beyond those detailed in the published reports. The two facets of the original inquiry, infant and child mortality and marital fertility, are examined separately in the following chapters; a convention followed in the historiographical sections below.

1.3 A new approach to infant and child mortality – the historiographical context

The study of fertility and mortality change has, of course, attracted an enormous range and volume of contributions over the course of the twentieth century, beginning with the preoccupations of the contemporary social commentators, academics and officials discussed in the previous section. Within this field the idea of demographic transition has been a long-lived and influential model. In its classic formulation, published by F. W. Notestein in 1945, it emerged as a well-elaborated, comprehensive and testable theory which provided an integrated account of both mortality and fertility change, with economic growth providing the prime mover.¹⁴ However, it has long been acknowledged that the well-documented historical populations of France, USA and Hungary all refuted one of the theory's central specifications – that mortality fell before fertility. Furthermore, in Britain's case it has always been considered a major embarrassment for the theory that fertility appears to have fallen long before infant mortality. Since the demise of transition theory no other thesis has succeeded in commanding attention in the same way. The term demographic transition has therefore continued to be used to refer to the two principal dimensions of modern demographic change, fertility and mortality decline, but in practice they have been studied for many decades as quite distinct processes, each with its own separate literature. Moreover, the study of infant mortality has been substantially conducted as a specialist subject in its own right, reflecting its quite distinctive aetiology and epidemiological patterns.

The aim of explaining the overall mortality decline at all ages has continued to attract grandiose theories, such as the McKeown thesis of nutritional determinism.¹⁵ But the effort to understand changing patterns of death specifically among the very young has been characterised by a more inductive and exploratory approach. Such research has exam-

ined a wide range of theses, principally including the role of the following factors: poverty, class, overcrowding, maternal and infant nutrition, inadequacy of domestic hygiene facilities and feeding practices, sanitary state of the wider environment outside the home, breast-feeding, general child care and its interaction with female working practices, and family size and frequency of childbearing. In the attempt to throw light on the relative importance of these various factors much effort has been devoted by a number of scholars to careful statistical inference from a range of comparative epidemiological data. The changing infant and child mortality rates of various different populations have therefore been compared: the Registrar-General's social classes, urban versus rural rates, distinct regions of the country, socially different parts of the same city, and different kinds of city.¹⁶ Other studies have shown that the distinct child rearing and feeding practices of different ethnic groups can substantially influence mortality among the young – a classic example being the low fatality rate of immigrant Jews in London's East End, regardless of exposure to a whole battery of the negative influences most strongly implicated elsewhere.¹⁷ Woods and his colleagues have maintained that a very wide range of factors were all involved in explaining infant mortality change; and, in a complete inversion of classic demographic transition theory, they have even suggested that falling fertility may also have been a factor, enhancing survivorship chances in smaller, more widely spaced families.¹⁸

By contrast, in their major comparative study of the USA and England and Wales Preston and Haines indicated that social class differentials were the most significant determinants of infant mortality in England and Wales, whereas other factors were more important in the USA. They used published data from the census of 1911 of England and Wales to analyse infant mortality differentials between the Registrar-General's social classes along with a range of socio-economic variables.¹⁹ In a separate publication Haines appeared to show that these class differentials had been widening down to 1911.²⁰ The authors did, however, point out that they suspected these social class findings might be reflecting the influence of various spatial factors, such as residential segregation, but were not able to pursue this possibility further.²¹ This is certainly one aspect of analysis on which the present study has been able to cast significantly greater light.

The likely significance of spatial factors has already been indicated by Watterson, who analysed different tabulations from the 1911 census publications, according to place of residence.²² Watterson found important differentials between urban and rural populations but, furthermore, argued that type of urban place appeared to be of considerable

significance, suggesting that the more industrial a town, the less healthy it was. This approach is further developed in chapters 4 and 6 of the present study through the application of a typology of 'environments', enabling the largely urban population of early twentieth-century England and Wales to be classified according to its local occupational and industrial complexion. Using this scheme it has been possible to demonstrate that the suspicions both of Preston and Haines and of Watterson, regarding the greater significance of residential environment rather than class affiliation according to the Registrar-General's social classification scheme, are indeed well founded. A multiple regression analysis finds that the new analytical category of 'environment' is consistently able to explain more variance in infant and child mortality than the Registrar-General's social classes.

In chapter 6 the published, tabulated census material for the whole population of England and Wales is re-examined, applying an 'environmental' analysis to the urban and rural patterns of infant and child mortality in the very early twentieth century. Some interesting perspectives on the overall geography of mortality among the young are produced, and the chapter emphasises the greater quantitative importance of the populous and often very unhealthy regions of Lancashire and West Yorkshire, dominated by the classic staple industries of textiles, mining, engineering and metal founding, over the less industrialised capital city of London, in influencing trends in the nation's mortality rates during this period. It can also be shown through this approach that London was not in fact as healthy as some contemporary observers seemed to believe.

It has also proved possible, using the individual-level census data, to examine rigorously a favourite thesis among many contemporary Edwardian analysts of infant mortality: the supposed negative effects of maternal employment on infant mortality rates. The research reported in chapters 4 and 5 concludes that figures supporting the 'maternal employment hypothesis' published in the 1911 *Fertility of marriage* report (and also the putative finding by Haines of widening class differentials in mortality among the young) are essentially the product of statistical artefacts in a retrospective source such as the 1911 census.

1.4 Fertility and nuptiality – debates and description

Where the study of change and variation in human fertility is concerned the output from both historians and social scientists since the Second World War has been very substantial, even if only those works strictly relevant to British history are considered. This brief introduction does

not attempt a thorough survey of this vast field, seeking only to place the present study within the context of the most immediately relevant literature. Chapter 5 contains more extensive discussion of several of the detailed issues.²³

As is the case with the analysis of infant and child mortality, one of this study's two principal advantages over previous unofficial investigations of changing fertility patterns in England and Wales lies in its capacity to analyse individual-level data from the 1911 Fertility Census. The other major advantage is that information for a number of specific, contrasting localities is available for analysis here.

Most previous studies have offered ecological statistical analyses of the average fertility and nuptiality patterns of sections of the national population drawn from the published data available in the official census reports. The studies tend to be of two types. First there are those addressing the variation in fertility and nuptiality behaviour exhibited by different geographical units: counties, registration districts and towns.²⁴ Secondly, there are those based on investigations of the fertility differentials between male occupational groupings, either amalgamated into the Registrar-General's social class scheme or, where possible, offering a more discriminating analysis of some of the several hundred individual occupational categories distinguished by the census authorities.²⁵ Studies of the latter type led both Haines and Szreter to conclude that the relationship between occupation, industry and community was probably a powerful determinant of fertility patterns and trends at this time. Both advocated that geography and the influence of local socio-economic and cultural environment should be addressed in future research.²⁶

Several demographic studies of specific communities in England and Wales have been recently completed, which have also indicated the significance of the kind of labour market relationships identified by some of the occupational studies, and concluded that various other influences, such as religious affiliation, ethnicity, residential segregation and local migration patterns, were probably also important.²⁷ However, these researchers have perforce had to focus on the period before the most rapid changes in fertility because of the hundred-year rule prohibiting access to the primary source material required for such demographic community studies, the census records. Furthermore, there are certain irreducible problems in deriving robust fertility measures from the information available in the census enumerators' books. Such studies, mostly of a single place in the mid-nineteenth century, although providing many important substantive insights and methodological innovations, can supply only limited rigorous demographic information with which

to track the momentous changes in fertility and nuptiality occurring during the period 1880–1920.

The comparative information on individuals and households in a number of specific communities available to the present study allows a more detailed and rigorous examination of some of the current debates concerning the nature of changing fertility and nuptiality in England and Wales during the period 1891 to 1911 than was previously possible. One issue which merits particular consideration is the question of the adequacy of the long-established, official class-differential model of fertility decline, which originated out of the debates between hereditarians and environmentalists. Szreter has argued that the Registrar-General's social classification scheme, which he terms the 'professional model' of society, was an ideological construction which reflected, without self-critical insight, the conventional social prejudices of the metropolitan, professional, scientific and administrative elite.²⁸ The latter, despite differences of opinion on other matters, clearly believed that they formed the apex of the socially graded hierarchy which was British society.²⁹

Szreter has demonstrated that the professional model of fertility decline was a misleading summary of the diverse patterns of occupational variation in fertility and nuptiality from which it was composed.³⁰ For instance, married couples placed in the professional model's top social category, social class I, were not the most heavily represented class among the 5 per cent of the nation's married couples exhibiting the lowest completed fertility in 1911, being outnumbered by couples classed to social class II. Conversely, it was not the low-paid, unskilled labourers of social class V but the highly paid coal-miners who exhibited the highest completed fertility in 1911.³¹ The spatial analysis by environment presented below in chapter 5, using the individual-level data, indicates that fertility variations in Britain at the turn of the century were significantly more complex than the picture depicted by the professional model of social classes. It is shown, for example, that elements of the population classified to the same social class in the Registrar-General's scheme exhibit rather different fertility levels depending on their residence in different types of environment.

This finding additionally relates to the issue of the relationship between occupation, industry and community as a social and cultural influence on courtship, marriage and child rearing patterns. Szreter has argued that these may be theoretically related through the concept of a 'communication community': a collectivity of similarly socialised persons and families, sharing in the dialect, body language, manners, norms and values of a local vernacular.³² He argued that, because familial and gender roles are necessarily integrated with the demands and

opportunities available in the local labour market, if a specific industry or form of employment predominates in a particular locality, it will endow that community with particular norms for family life. These, of course, may change over time, especially if the relevant characteristics of the main industries change. The point is that an intimate connection between the employment and industrial complexion of a community and its fertility, courtship and nuptiality characteristics can be expected. Chapters 5 and 6 of the present study add further evidence and support to the argument that distinctive local demographic regimes existed, especially where there was the dominant presence of a particular kind of employment, as in middle-class Pinner with its high demand for domestic servants, the potteries of Stoke, the coalfields of South Wales and the North East, or the mill towns on either side of the Pennines. Indeed, the thesis is amplified by demonstrating that the differently gendered and class-specific local labour markets led to quite diverse age and sex structures in the communities under examination. Since such diversity was particularly marked at the key marriage ages, there were strong implications in this for local marriage markets, courtship practices and sexual codes. This therefore explains why fertility and nuptiality patterns may have varied as an attribute of 'communication communities'.

Szreter's vision of distinctive communication communities, each with its own trajectories of fertility and nuptiality change, raises the issue of multiple, independent fertility declines in Britain. This contrasts sharply with the long-established professional model of a single, socially graded process of fertility decline gradually diffusing down a putative social hierarchy.³³ Woods, too, has called into question the notion of a change starting at the social apex and subsequently spreading from there, noting that the Registrar-General's social classes tend to exhibit a close simultaneity in the downward movement of their fertility indices, with the main difference being that the higher social classes exhibit lower fertility, but not necessarily earlier reductions in fertility.³⁴ This is a major area of contention in the historiography, since the most important previous interpretations of fertility change have presented their respective theses on the premise that a single, identifiable causal process, albeit complex and not necessarily reducible to a single factor, was at work in producing falling fertility throughout British society, with argument centring on the extent to which economic, cultural or social forces were of primary significance.³⁵

Unfortunately, conclusive, relevant analyses to test the thesis that Britain's late-nineteenth-century demography was fragmented into a number of distinctive communication communities were beyond the

reach of the present study. The anonymous nature and spatial structure of the data extracted from the 13 locales precluded any record linkage methodology and thus prevented a thorough socio-economic and cultural reconstruction of each community. The application of the fourfold environmental typology to national data, presented in chapter 5, does, however, identify at least two spatially distinct geographical regions of the country in which low fertility emerged relatively early, substantiating Woods' point. The first, in the South, comprised many districts in which there was a strong middle-class residential presence, although it is important to recognise, as demonstrated in chapter 5, that the low fertility of these areas was by no means confined only to the upper- and middle-class households they contained. Secondly, there were the 'textile regions': an area encompassing not just the mill towns of Lancashire and Yorkshire's West Riding, but also the textile districts of the neighbouring East Midland counties of Derbyshire, Nottinghamshire and Leicestershire. While it is easy to conceive of connecting communications within each of these two very diverse regions, it is much more difficult to envisage connections specifically between them and no other regions; and thus the concepts of communication communities and of multiple fertility declines rather than the unitary 'diffusion' process do gain a degree of support from the work undertaken here, although many questions still remain.

There has always been much debate over the relationship between female employment and fertility, and the present study is also able to offer an important contribution in this area. It was clearly recognised by Edwardian observers that those parts of the country in which women worked outside the home in textile factories tended to exhibit relatively low birth rates. As mentioned above, it was also noted that such areas recorded relatively high rates of infant mortality. In both cases, there was an obvious, straightforward causal inference which it was tempting to draw and which contemporaries, including Stevenson at the GRO, sought to verify in empirical studies. On the fertility side it has been supposed that the need for, or desire of, a mother to remain in paid employment militated against large families. On the mortality side, working mothers were condemned on the grounds that their infants suffered from the lack of breast-feeding and care which their mothers' absence from home entailed. Stevenson was able to produce tables from the 1911 census returns demonstrating that mothers in the labour force did indeed record both extremely low fertility and very high infant mortality.³⁶

Although many historians have been rightly critical of the ideological bias which is evident in such studies, slanted as they were against working-class women and their means of earning a living, there has been little previous attempt to question the statistical associations

which they reported.³⁷ Using the individual-level data available from the 1911 OPCS localities, it is demonstrated in chapters 4 and 5 that the statistical association between maternal employment and both high infant mortality and low fertility probably flowed in precisely the opposite direction to that supposed by contemporaries. Married women tended to be enumerated in employment at the census, it is argued, because of their low effective fertility: they had either had few children or suffered a high rate of child loss. In other words, those mothers reported by the census to be in the labour force were selected for their *prior* low fertility or high infant mortality. Mothers worked because they had few children to care for; they did not necessarily have few children because they worked. Of course, in many parts of the country there was little paid work outside the home available for women, and so this selection effect only became statistically obvious in those few areas, such as the textiles regions, where female employment opportunities were available in abundance. This important finding also implies that the remarkably low fertility of most mill towns was not simply due to the direct consequences of married women working. This returns us once again to consideration of the probable importance of the overall socio-demographic character and unusual labour markets of these particular towns in creating a particular set of social relationships and familial roles conducive to low-fertility norms of family life, shared by all in the communication community.

Finally, this brief historiographical introduction should draw attention to the relevance of the work reported below in chapter 5 for the recent debates within the fertility literature on the question of 'stopping' versus 'spacing' or 'starting'. Until the 1980s the historical demography of fertility was dominated by the Henry-Coale-Trussell concept of 'natural fertility' and its associated investigative methodologies.³⁸ This was a model which predisposed researchers to think primarily in terms of parity-specific 'stopping' behaviour – the relatively abrupt curtailment of births at higher parities – as the only significant divergence from uncontrolled, unplanned or natural fertility. Although it was recognised that the historical and ethnographic evidence showed that the rate of childbearing at lower parities could vary significantly in different populations, this was considered to be principally the result of the vast range of involuntary social, cultural, biological, epidemiological, institutional and economic factors which were known to operate and any of which could cause the rate of childbearing to vary without any conscious intervention.³⁹ Thus, a wide range of absolute levels of natural fertility was recognised, but only one significant form of 'modern' birth control: parity-specific stopping.

During the course of the 1980s and 1990s, however, the self-imposed conceptual limitations and related methodological weaknesses of the dichotomy between natural fertility and stopping have come to be recognised; and alternative generic methods for detecting other forms of deliberate birth control in the past have been devised, although these too have their problems.⁴⁰ Furthermore, detailed empirical research on falling fertility, both in nineteenth-century USA and in England and Wales, has demonstrated that stopping was by no means the principal method of birth control used when these populations began deliberate fertility restraint: there was much 'spacing' in evidence, and this quite probably also entailed extensive 'starting' (a long gap between marriage and the first birth).⁴¹ Using the responses to the special questions in the 1911 Fertility Census, chapter 5 reports on the detailed assessments of the contribution of stopping, spacing and starting to the family building strategies of England and Wales at the dawn of the twentieth century.

1.5 Limitations of the present study

Without anticipating the detailed considerations covered in later chapters, one or two words of general caution are in order regarding the scope of the 1911 census material available to this study and its relationship to fertility and infant and child mortality – the main subjects of research. As will become obvious from the various technical discussions, the data used here required cautious and careful exegesis. Constraints, as already suggested, were imposed on the range of possible social and demographic analyses by the requirements of OPCS that the data supplied be both anonymised and in most cases related only to a part, not the whole, of any definable community or settlement. It was therefore not possible to pursue a set of conventional 'community studies', although analysis could be conducted at the level of relatively small geographical areas.

Secondly, it needs to be fully acknowledged at the outset that, despite their detailed statistical nature, the official sources of household and demographic information, such as the census, have their limitations, especially with respect to the issues of changing fertility. In regard to the latter, there are two key questions to which historical demographers would ideally wish an answer. What motives and intentions prompted individuals in the late nineteenth century to commence controlling their fertility to a quite unprecedented extent? And what methods were used to achieve this reduction in live births? Unfortunately, statistical material such as that used here cannot, by its nature, offer direct

answers to either of these questions. It may seem strange to commence a long volume which devotes much of its space to the study of fertility change with the admission that none of the following evidence relates directly to the key questions. However, in this constraint we are little different from virtually all other historical researchers in this field. Inference from the indirect evidence provided by the changing patterns of fertility, nuptiality and child survival has had to remain our principal method of inquiry.

When considering fertility, the extreme paucity of surviving, direct evidence on intentions and techniques is the result of two compounding silences in the historical record. First, until the very end of the nineteenth century there was little public acknowledgement of the widespread nature of the fertility changes occurring. Second, British society had evolved a general code of euphemism and evasion in virtually all sexual matters.⁴² The rapidly falling birth rate necessarily implied significant modifications in sexual behaviour between spouses, presumably involving less frequent intercourse or contraceptive behaviour or both, but as it was considered indelicate and vulgar to pursue such matters in explicit public discussion, even the most fearless pioneering sexologists have left remarkably little explicit and direct information on the changes which were occurring.⁴³

Such evidence as is available indicates a generally negative and moralistic attitude towards contraceptives, something that was endorsed as much by a medical profession anxious to avoid slurs on its reputation, as by the Anglican clergy and by working-class leaders.⁴⁴ There seems to be a rare consensus among those historians who have conducted oral history investigations that the working classes in the first half of the twentieth century genuinely shared much of this sense of opprobrium regarding birth control and, indeed, for many women this seems to have extended to their attitude to sexuality in general.⁴⁵ This is certainly consistent with the general state of profound public ignorance on matters of basic sexual functioning and anatomy which has been found in many communities throughout the period to the Second World War, even among trained doctors.⁴⁶

Despite discussion of the moral and social issues involved in fertility decline in the novels of the period, from Thomas Hardy's frank and harrowing *Jude the Obscure*, which proved too shocking for contemporary taste in the late 1890s, to Galsworthy's more urbane, subsequent reflections in the *Forsyte Saga*, there was little precise or well-defined appreciation of the changes under way.⁴⁷ Only a self-consciously radical fringe of sexologists, who were so daring as to attempt to reconstruct a language of sexuality at this time, were trying to discuss sexual behaviour at all.⁴⁸

If letters addressed to Marie Stopes are at all representative, it was not until the publication of *Married Love* in 1918 that the wider British public received some form of explicit instruction in the sensual arts of the marriage bed and acquired a vocabulary which permitted correspondence on these matters.⁴⁹

In the relative absence of substantial and representative direct testimony, historians have championed many different methods of birth control as the ones they believe to have been most prevalent, with the condom or sheath, *coitus interruptus* and abortion having been most frequently favoured.⁵⁰ Most recently, Szreter has concluded, from a critical review of the available qualitative and quantitative evidence, that various regimes involving attempted abstinence within marriage, some no doubt incorporating the use of *coitus interruptus* and some quite possibly countenancing the resort to abortion, were probably the predominant culture of birth control in England and Wales, before the arrival of latex condoms, caps and diaphragms after 1930.⁵¹

When attention turns to the marked improvement in the survival prospects of the nation's young at the dawn of the twentieth century, the means by which this was achieved is obscured not so much by the silence of the historical record as by the clamour created by the plethora of different authorities involved, each acting, as well as monitoring and reporting developments, within their own particular terms of reference.

In 1858 central government had effectively stepped out of the arena of environmental improvement, placing the matter in the hands of local government. In that year compulsory preventive health clauses included in the 1848 Public Health Act were repealed.⁵² From then, until well into the following century, the orthodoxy of *laissez-faire* meant that it was the local governments of Britain, ranging from the municipal councils of wealthy cities to the councils of the most sparsely populated of the rural administrative districts, which largely decided and funded local amenities.⁵³ Certainly Parliament passed much enabling legislation with regard to health measures but compelling laws were much, much rarer. Thus the four decades before the outbreak of hostilities in 1914 witnessed enormous variation in the way in which different communities, towns and cities managed their local environments. The variation was manifest even in such absolute basics as the quality of the water supply and the extent to which the population had access to adequate sewerage; there were still many medium-size towns lacking such basic amenities even in the inter-war years.

Why certain cities should be leaders in instigating public health improvements while others, often close by, were laggards remains a subject of historical debate, although continuing research is beginning

to point to certain principal reasons. A major factor was finance. In an era when the principal fiscal source for urban environmental maintenance, along with other social services, was the local ratepayers, the availability of funds for improvements was dictated by two components. The first was the ability to generate the required capital for improvements. London in the 1860s had been the first British city to make the colossal investment necessary to construct a comprehensive arterial mains sewerage system.⁵⁴ Initially, only the largest cities, such as Glasgow and Birmingham, had the capacity to raise and service the enormous loans required to follow London's lead, and thus maintain their ethos of 'civic pride'. The ability of smaller towns to finance public health measures was often dictated by the historical accident of how much productive property was owned by the council, or by their willingness to become involved in 'municipal trading': the collective ownership of amenities such as gas works or tramways.⁵⁵ The latter could act as a source of revenue, providing funding for environmental improvement.

The ability to raise finance was tempered by the political will to spend the money on projects of benefit to all.⁵⁶ Much depended upon in whose hands power lay. In the towns by the last quarter of the nineteenth century there were three forces in the political arena: the civic leaders, very often drawn from the industrial and commercial elite, the propertied ratepaying class, representing petty capital, who throughout the nineteenth century had been vehemently opposed to moves which would increase the rates, and the non-property-holding voters who had been given a voice in municipal affairs by the franchise reforms of the late 1860s. Civic leaders had to have the good of their constituents at heart as well as their support before serious urban improvement became possible in Victorian Britain. In the rural areas power lay for much longer with the landowning classes, and this may in part explain why rural health, long protected by the generally more salubrious environment, failed to improve at a pace similar to that of the urban areas in this period.

The picture of piecemeal environmental improvement found in England and Wales over the last decades of the nineteenth century has implications for national trends in mortality. The inhabitants of the large towns and cities may have been subjected for longest to the poorest survival chances, but, once improvements were engendered, their large size meant that, in combination, they would create the impression of an accelerated decline in the national mortality trends.

Thus, while council minute books and local MOH reports detail the debates, discussions and decisions surrounding various authorities'

march towards health reform, the very weight of material in all its diversity perhaps obscures the general outline of the path to better health. For a broader picture historians have once again to resort to inference, mainly from geographical and temporal patterns of mortality, to gauge the extent, efficacy and intentions behind the measures put in place. The present study is constrained in its ability to further our understanding by the fact that details on neither the age nor the cause of death of the children were reported in the data used here. Nevertheless, because data are drawn at an individual level from a selection of widely spread communities, observations can be made regarding the interaction of status, location and environment which illuminate the processes by which health improvements were achieved.

1.6 Summary

The current volume represents a further attempt to reach behind and beyond the agenda of the contemporary officials who created the original source materials for studying the demographic history of England and Wales during the last quarter of the nineteenth century and the first decade of the twentieth. We are, of course, profoundly in their debt for the Herculean tasks which they performed, but we are not so bound by debts of gratitude that we must continue to accept and work with the particular models of society and the hypotheses relating to fertility and mortality which emerged from the policy debates of the time. Where previously the analysis of occupational variation has provided a principal means to develop an alternative perspective on the findings of the 1911 Fertility Census, here the primary focus will be the influence of geography: the importance of the social and physical environment in accounting for the changing demography of this period. As mentioned above, a number of other scholars, studying both fertility and mortality during the nineteenth and early twentieth centuries, have also recently focused increasingly on place and environment, as potentially offering important insights into the way in which demographic change occurred.⁵⁷ This volume aims to take up the lead offered by these recent initiatives: studying the processes of change in fertility and infant and child mortality by exploiting data of a higher demographic quality and a more discriminating geographic character than has previously been available for England and Wales in the late nineteenth and early twentieth centuries.

Notes

- 1 Mitchell and Deane (1962), pp. 36–7.
- 2 *Ibid.*, pp. 29–30.
- 3 Zhao (1996), pp. 262–3, Tables 7 and 8.
- 4 On the concept of ‘demographic certainty’ see Anderson (1985), pp. 86–7.
- 5 On the administrative history of the GRO, see Glass (1973); Cullen (1974); Eyler (1979); Higgs (1989, 1996a, 1996b, 1996c).
- 6 Eyler (1979); Higgs (1988b, 1991); Szreter (1991).
- 7 The literature on ‘national efficiency’ is copious. See, *inter alia*, Searle (1971); Soloway (1982); Szreter (1996b), chs. 4–5.
- 8 Pearson (1896), pp. 301–5; Heron (1906); Webb (1907).
- 9 On the public health movement see Eyler (1979); Smith, F. B. (1979); Wohl (1983); Szreter (1991); Hardy (1993); Eyler (1997).
- 10 See, for instance: Stevenson and Newsholme (1905, 1906). For a full account of the developments summarised here, see Szreter (1996b), chs. 4–5.
- 11 The 1911 census was not the only British census to include questions on fertility. Questions directly concerned with fertility were asked in 1951 and in 1961. These census schedules did not, however, record the number of children who had subsequently died. Questions concerning ‘orphanhood and dependency’ asked in the 1921 census give an indirect means of considering fertility, but give no indication of the mortality experienced by the children born; Office of Population Censuses and Surveys and GRO, Edinburgh (1977).
- 12 A very few statistics based on the ‘fertility’ questions in the 1911 census were reported in: 1911 Census of England and Wales (1915), Vol. X, *Occupations and industries*, Part II. The 1911 Census of England and Wales (1917), Vol. XIII, *Fertility of marriage*, Part I (hereafter *Fertility of marriage*, Part I) contained a large amount of tabulated information, principally relating to the nation as a whole, but Part II (hereafter *Fertility of marriage*, Part II), published in 1923, presented far more detailed analyses and tables. For full British Parliamentary Paper references see the bibliography.
- 13 Examples of studies of fertility using different sources include: Glass (1938); Innes (1938); Haines (1979); Teitelbaum (1984); Hinde (1985); Garrett (1987); Walker, S. P. (1988); Kemmer (1990); Rainger (1995).
- 14 Notestein (1945). On the complex history of the idea of demographic transition, see Szreter (1993a).
- 15 McKeown (1976). Szreter (1988) provides a critique of McKeown’s thesis and indications for an alternative approach.
- 16 Williamson, J. G. (1981); Woods (1984); Buchanan (1985); Watterson (1986, 1988); Lee, C. H. (1991); Preston and Haines (1991); Williams, N. (1992); Williams and Mooney (1994).
- 17 Marks (1994). On other ethnic groups see, for instance, Goldstein *et al.* (1994); Fitzpatrick (1986).
- 18 Woods, Watterson and Woodward (1988, 1989).
- 19 Preston and Haines (1991), pp. 177–98.
- 20 Haines (1995).
- 21 Preston and Haines (1991), p. 197.
- 22 Watterson (1986).
- 23 For a recent review focusing on literature of relevance to Britain, see Szreter (1996b), ch. 1. Other helpful and wide-ranging reviews include: Hauser and Duncan (1959); Hawthorn (1970); Cleland and Wilson (1987); Alter (1992).

- 24 Glass (1938); Anderson (1976); Friedlander (1983); Teitelbaum (1984); Woods (1987); Crafts (1989).
- 25 On social classes, see Stevenson (1925, 1928); Innes (1938); Haines (1989, 1992). On occupations, see Haines (1979); Banks (1981), ch. 8; Szreter (1996b), Parts III and IV. The studies of Walker, S.P. (1988), Kemmer (1990) and Rainger (1995), focusing on distinct occupational sections of the Edinburgh population, were able to use Scottish vital registration records, a category of evidence which remains inaccessible to historical researchers in England and Wales, to good effect. On Scottish occupations see Anderson (1998b), Table 3.
- 26 Haines (1979); Szreter (1996b).
- 27 Hinde (1985); Garrett (1987); Dupree (1994); Reay (1994, 1996).
- 28 Szreter (1996b), Part II and ch. 6. For the argument that the British official model of social classes privileged the professions, see Szreter (1993b).
- 29 *Ibid.*, pp. 365–6.
- 30 *Ibid.*, ch. 6.
- 31 *Ibid.*, pp. 305–6.
- 32 *Ibid.*, pp. 546–55. The concept of communication community is therefore an attempt to emphasise the significance of the range of characteristics given prominence in Pierre Bourdieu's notion of *habitus*. Bourdieu (1977).
- 33 Szreter (1996b), ch. 7.
- 34 Woods (1987). The earliest cohorts surviving to report their fertility in the 1911 census were married in the 1850s and 1860s. Among these couples fertility appears to have been particularly low in both class I and class VI, 'Textile workers'. However, as little evidence exists concerning class differentials in fertility prior to the mid-nineteenth century, it is hard to say whether this differential was due to an earlier decline in fertility or to longer-established lower levels of fertility.
- 35 Banks (1954, 1981); Caldwell (1982); Teitelbaum (1984); Coale (1986); Levine (1987), ch. 4; Gillis *et al.* (1992); Secombe (1993), ch. 5. See Cleland and Wilson (1987) on the stand-off between economic and cultural theories of fertility decline.
- 36 *Fertility of marriage*, Part II (1923), Table XLIX, p. cxiii and Table L, p. cxv.
- 37 Davin (1978); Dyhouse (1978); Lewis (1980).
- 38 Henry (1961); Coale (1967); Coale and Trussell (1974, 1975).
- 39 Davis and Blake (1956); Bongaarts and Potter (1983); Weinstein *et al.* (1990).
- 40 Wilson *et al.* (1988); David and Sanderson (1988, 1990); Okun (1994). For a review of the relevance of this methodological literature to the current study, see below, chapter 5, sections 5.3 to 5.5.
- 41 Crafts (1989); Bean *et al.* (1990); Szreter (1996b), ch. 8.
- 42 Mason (1994a, 1994b); Porter and Hall (1995), Part II; Szreter (1996b), chs. 8 and 10. For an account which helpfully draws on the scattered literary testimony available, see Kane (1995), chs. 6–8.
- 43 There has been considerable debate among historians over whether or not middle-class Victorians really were as 'Victorian' in their sexual behaviour and attitudes as has been proverbially supposed. The principal revisionist work was Gay (1986). The most recent, and much more fully documented studies of Victorian sexuality and sexual knowledge have, however, tended to confirm the original view of a relatively inhibited Victorian sexuality, albeit far from monolithic and uniform in its manifestations: Mason (1994a,

- 1994b); Porter and Hall (1995). Nevertheless, there may well be room for argument over greater licence in the earlier half of the nineteenth century; see Robin (1986); Barret-Ducrocq (1991). For a systematic review of the small amount of direct evidence on these matters that is available, both for the period before the Great War and for the inter-war decades, see Szreter (1996b), ch. 8.
- 44 McLaren (1978), ch. 7; Soloway (1982), chs. 5–6, 11–14; Hall, L. (1991), ch. 2; Porter and Hall (1995), ch. 10.
- 45 Roberts, E. (1984), pp. 71–80, 84–100; Chinn (1988), pp. 141–8.
- 46 Roberts, E. (1984), pp. 16–17, 80, 109–10; Hall, L. (1985, 1991, chs. 1, 3, 5 and 6); Cohen (1993); Porter and Hall (1995) ch. 11.
- 47 For a fuller discussion of Galsworthy's treatment of the issues see the opening section of chapter 5.
- 48 Those such as Olive Schreiner, Eleanor Marx, Annie Besant and Maria Sharpe, who were associated with Karl Pearson's Men and Women's Club in the late-1880s, were among early female examples of such sexual radicals, though several of the most advanced male radicals of the time, such as Havelock Ellis and Bernard Shaw, were excluded from participation by Pearson: Walkowitz (1992), ch. 5, esp. n.27. In general, see Porter and Hall (1995), chs. 7–8; Bland (1995).
- 49 Stopes (1918).
- 50 Himes (1936); Banks (1954); Fryer (1967); McLaren (1978); Gittins (1982); Davey (1988); Seccombe (1990); Mason (1994b), ch. 2; Santow (1995).
- 51 Szreter (1996b), ch. 8. For an important earlier contribution emphasising the role of abstinence among the Edinburgh professional class, see Kemmer (1990).
- 52 The 1848 clauses had been fought for by Edwin Chadwick and had included a compulsion on local authorities to fund expensive sanitary improvements if either 10 per cent of ratepayers petitioned central government for such improvements or if the Registrar-General found the town's death rate to be above the national average of 23 per thousand living: Szreter (1988).
- 53 *Ibid.*
- 54 *Ibid.*, p. 20.
- 55 Millward and Sheard (1995) suggest that municipal trading was very much a feature of northern and midland industrial towns.
- 56 Szreter (1997).
- 57 Haines (1979); Woods, Watterson and Woodward (1988, 1989); Crafts (1989); Lee, C. H. (1991); Williams, N. (1992); Mooney (1994a); Williams and Mooney (1994); Williams and Galley (1995).